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ABSTRACT

The national education goals express a systemic approach to reform which fosters coherence in the disparate elements of the education system. This report highlights the findings of research conducted by the Center for Research on the Context of Secondary School Teaching (CRC) in California and Michigan during the years 1987-1992 and the implications for policy strategies to achieve the national education goals. The major sections of the report are: (1) contexts that matter for teaching and learning; (2) professional communities as mediating contexts of teaching; (3) strategic opportunities for action: meeting the national education goals; and (4) integrating educational reform strategies. A central conclusion of CRC's research is that teachers' groups, professional communities variously defined, offer the most effective unit of intervention and reform; it is within the context of a professional community that teachers can consider the meaning of the education goals in terms of their classrooms, students, and content area. Related to this conclusion is the conviction that meeting the education goals requires a reframing of the policy debate to address simultaneously the interdependent, core needs of improved content, student supports, and sustained learning opportunities for teachers. An appendix provides information on the CRC research strategy and data bases and a description of its field sample of diverse and embedded secondary school contexts (school, district, sector, metro area, and state contexts). A list of CRC books, articles, and reports is included at the end of this report. (LL)

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CONTEXTS THAT MATTER FOR TEACHING AND LEARNING

STRATEGIC OPPORTUNITIES FOR MEETING THE NATION'S EDUCATIONAL GOALS

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CRC

Center for Research on the Context of Secondary School Teaching

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Contexts That Matter For Teaching And Learning

Strategic Opportunities for Meeting the Nation's Educational Goals

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MARCH 1993

CRC
Center for Research on the Context of Secondary School Teaching

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The Center for Research on the Context of Secondary School Teaching (CRC), located at Stanford University, was founded in 1987 with a five-year National Center grant from the U.S. Department of Education, Office of Educational Research and Improvement. [Grant #G0087C0235]

The CRC conducts longitudinal research combining intensive case studies of public and independent schools and teachers with analyses of national survey data to assess factors that either constrain or enable the best work of teachers and students. The research analyzes organizational, policy, and social-cultural conditions of the embedded context of the classroom, the subject area department, the school, the local community, and the school district. The CRC is developing grounded theory on how context conditions affect high school teaching and framing policy recommendations for improving secondary education.

The research program of the CRC has helped to develop an interdisciplinary community of scholars to conduct research on teachers' professional communities and practice in diverse contexts.

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FOREWORD

This report highlights major findings of CRC research conducted during 1987-1992 and their implications for policy strategies to achieve the nation's goals for K-12 education. The Center's research program has been a highly collaborative enterprise, as attested by the acknowledgements at the end of this report; however, the authors' conclusions and recommendations do not necessarily reflect the views of all CRC researchers or of the funding agency.

Major sections of the report are:

- Contexts that matter for teaching and learning
- Professional communities as mediating contexts of teaching
- Strategic opportunities for action: meeting the nation's education goals
- Integrating educational reform strategies.

Appendices provide brief descriptions of the Center's research strategy and its field sample of high schools (see CRC publication R92-6 for a full description of the core data base).

A list of CRC books, articles, and reports is included at the end of this report.

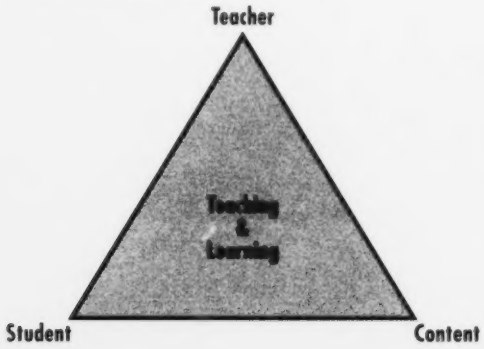
CONTEXTS THAT MATTER FOR TEACHING AND LEARNING

The nation's education goals embrace rigorous, "world class" standards of performance for all students; they express a systemic approach to reform which fosters coherence in the disparate elements of the education system. These ambitious goals for American education must be achieved on a classroom by classroom basis. Success for all students depends ultimately on what teachers do in the classroom, on teachers' ability and willingness to provide the kinds of educational environments necessary to meet the country's education goals.

The Core of the Problem

The core of the challenge and the opportunity for meeting the nation's education goals lie at the core of the education system: the classroom interactions among teacher, students, and content, the "stuff" of teaching and learning. The extent to which systemic reform succeeds in bringing coherence to the education system and fostering success for all students depends on the extent to which its ideas, strategies, and perspectives become part of this "stuff" of the classroom educational environment.

Figure 1. The Core of the Education System



The changes in practice, content, and pedagogy assumed by the national education goals are extremely complex and difficult to carry out, or even to understand. At its core, the problem of systemic reform fundamentally is a problem of teachers learning how to translate enhanced curricula and higher standards into teaching and learning for all of their students.

Students as Context

Teachers agree that students are the context that matters most to what they do in the classroom, and that today's students differ in many ways from students of the past and not-so-distant past. Contemporary students bring different cultures and languages to school, different attitudes and support to the classroom and learning. They themselves are required to navigate difficult and competing pressures of family, peers, and community at the same time that they are expected to function as students. Today's students are highly mobile; for example, many teachers teach in schools where the turnover rate between September and June is 100%.

Patterns of Teachers' Responses

Teachers' responses to the challenges presented by today's students and, by extension, to the nation's education goals, vary substantially among *and* within schools. Among the teachers participating in the CRC's research, three broad patterns of adaptation to today's students are evident in teachers' classroom practices and expectations, namely:

- enforce traditional standards
- lower expectations
- change practices.

Many of the teachers who continue traditional practices see the behavioral and achievement problems in today's classrooms primarily as students' problems, exacerbated by inadequate support or discipline at the school or in the district. Teachers who view contemporary classrooms this way tend to frame their responses in terms of tougher rules and enforcement, and justify their practices in terms of traditional subject area standards and orthodoxies: "...the kid here is where the problem is today. There is nothing wrong with the curriculum." Teachers adapting in this way to contemporary students quickly become cynical, frustrated, and burned out. So do their students, many of whom fail to meet expectations established for the classroom.

Teachers who lower their expectations for today's students often water-down curriculum. Often, this retreat from traditional standards and academics represents a well-meaning attempt to structure a supportive classroom environment. However, some teachers adopting this perspective believe that many of today's students "just can't cut it," and that "there is just so much a teacher can do for these students." Regardless of teachers' rationale, both teachers and students in classrooms of this stripe find themselves bored and disengaged from teaching and learning.

Figure 2. Teachers' Responses to Today's Students

Patterns of Adaptation	Domains of Adaptation			Teacher Outcomes
	Authority Relations	Pedagogy	Content	
Enforce traditional standards	Teacher dominates; more rules; more sanctions	Transmission teaching; more worksheets and tests	Emphasis on traditional, fact-based curriculum	Burnout; cynicism
Lower expectations	Various; relax rules	Various	Watered-down subject matter	Disengagement
Change practices	Teacher facilitates; construct group norms	Active student role; cooperative learning	Emphasis on conceptual understanding	Efficacy; frustration

Still other teachers reject the view that locates "the problem" in the student and have made fundamental adaptations in their practices, adaptations consistent with and supportive of the nation's educational goals. Teachers successful in engaging contemporary students and fostering their success with challenging academic content generally have moved from traditional, teacher-controlled pedagogy to work interactively with students, encouraging an active student role. Their students wrestle with problems and puzzles of subject matter and achieve deeper understandings than is possible with traditional modes of instruction. These teachers, knowingly or not, embrace the vision of practice often called "teaching for understanding," which promises not only to engage nontraditional students but to improve learning outcomes for all students. In their classrooms, as in the nation's vision of 21st century schooling, equity and excellence go hand-in-hand.

However, some teachers who attempted such changes in practice, we found, were unable to sustain them and became frustrated and discouraged. This is because learning how to teach for student understanding goes against the grain of traditional classroom practice and so entails radical change ar[illegible]ks obstruction. Those teachers who made effective adaptations to today's students had one thing in common: each belonged to an active professional community which encouraged and enabled them to transform their teaching.

PROFESSIONAL COMMUNITIES AS MEDIATING CONTEXTS OF TEACHING

CRC research found that teachers' responses to today's students and notions of good teaching practice are heavily *mediated by the character of the professional communities* in which they work. In other words, teachers define standards for their classroom practice through interactions with other teachers and administrators; and the communities of practice that evolve in the day-to-day work of schooling tend to support one or another of the alternative adaptations to students displayed in Figure 2. In our work we encountered professional communities that enforced traditional standards and so fostered burnout or cynicism among teachers and failure among today's students; communities that supported lower standards for many students and so engendered disengagement among teachers and students alike; and professional communities that enabled teachers to learn new practices that engaged today's students in learning consistent with the nation's education goals of excellence for all.

The professional communities of secondary school teachers differ from one another in a number of important ways:

- boundaries and inclusiveness — communities are more and less bounded by the school, a department within the school, the district, the state, and by associations or networks outside the school system;
- strength — they are more or less active or based in sustained collegial relations and discourse about instruction versus tacit understandings of traditional notions of subject matter, students, and pedagogy; and
- cultures — they differ in the nature of shared educational priorities, norms for relations with students and colleagues, and conceptions of good teaching practice.

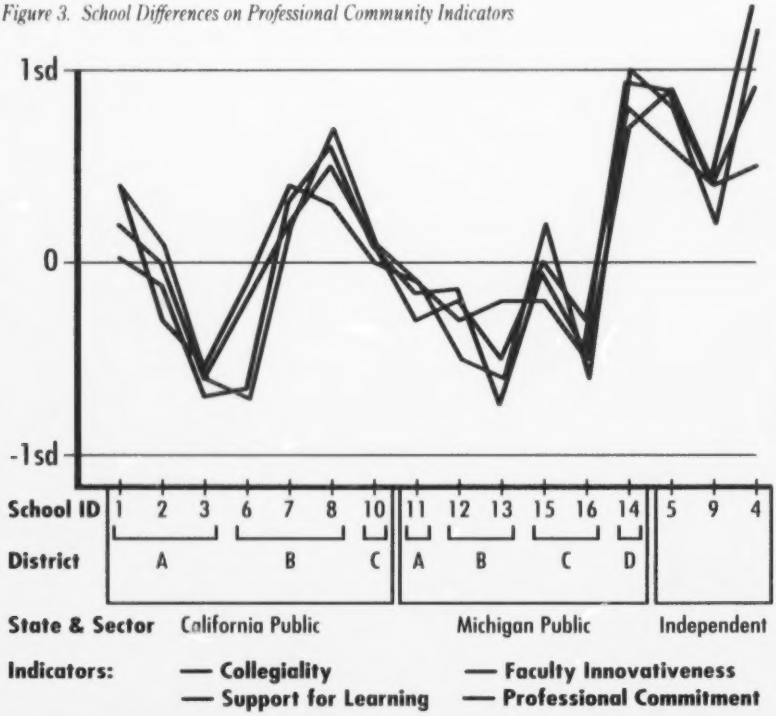
School Contexts

Our research, like earlier work in the effective schools tradition, found that schools constitute an important context for the development of strong professional communities. As shown in Figure 3, CRC schools differed strikingly from one another in the strength of their professional communities — reporting clear differences, even within the same districts, in levels of collegiality, faculty innovativeness, and learning opportunities as perceived by teachers. Figure 3 also displays the strong association of these school-level community differences with the level of teachers' commitment to their students, subject, school, and the profession.

Teachers in California's School 8, for example, formed a strong school-wide community devoted to the success of all students in the school and to supporting one anothers' efforts to adapt instruction to meet students' learning needs. These teachers

felt supported by their colleagues to succeed in their teaching and experienced professional growth in their daily worklives. In contrast, teachers in another school in the same district (School 6) lacked a strong school-wide community. Although these teachers met essentially the same students in terms of family conditions, ethnicity, and aspirations, many of them complained about the attitudes and competence of students in their classes and either rigidly maintained traditional education standards and failed many students or watered down the curriculum and disengaged. Such differences in school community obviously matter enormously for today's students' experiences of school and their opportunities to learn.

Figure 3. School Differences on Professional Community Indicators



Technical Note: The CRC Collegiality Index is a 5-item scale based upon High School & Beyond teacher survey items (Alpha=.84); Teacher Learning Opportunities is an 8-item scale (Alpha=.85); Faculty Innovativeness is a 5-item scale (Alpha=.79); Professional Commitment is an 8-item scale (Alpha=.75). [Questions used for the scales may be obtained on request.] Teachers' scores on each scale were standardized to allow for comparability. Averages for each CRC school are plotted in the figure.

High School Department Contexts

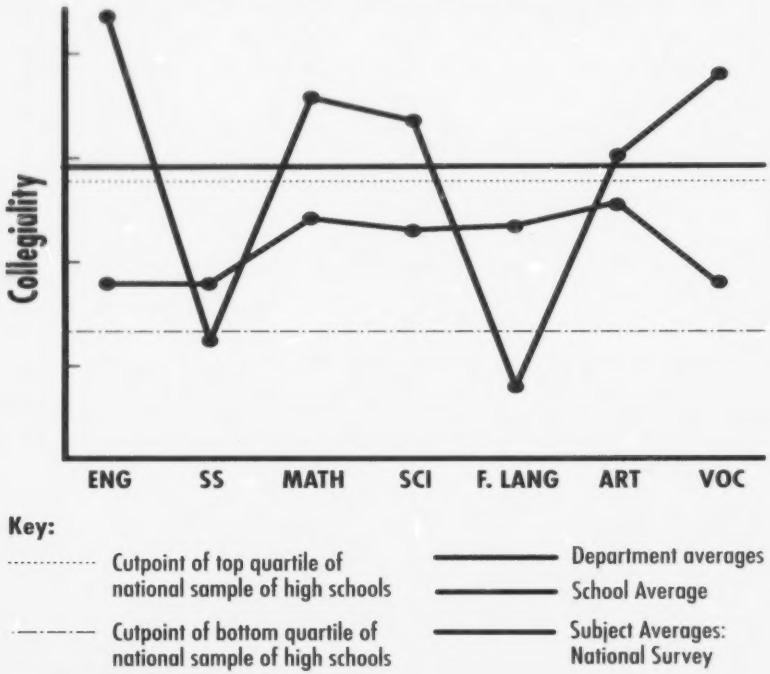
Subject area departments also constitute important contexts for high school teaching. Our research indicates that departments within the same high school can differ enormously from one another in the opportunities they provide teachers for colleagial support and for improving their practice with today's students. Also, mathematics departments, for example, can differ substantially across schools in terms of the norms and standards of good teaching they embrace.

The salience and significance to teachers of department-level communities are illustrated by the case of Oak Valley, a large comprehensive high school. A look at professional community indicators for the whole school produces the impression of a strong school-wide community (see scores for School 10 in Figure 3). However, the worklives of teachers within the school belie this portrait. Indeed, as Figure 4 reveals, teachers in Oak Valley's English department and teachers in the social studies department experienced radically different "schools" in their day-to-day worklives. On an indicator of school community used in a 1984 national survey, these two departments fell within the top and bottom quartiles of the distribution of U.S. high schools. The national norms for subject areas reported in Figure 4 indicate that these department differences were not due to cross-discipline differences in colleague relationships but to department conditions. Teachers in such comprehensive high schools, we found, experience the up-close community of the subject department as their primary workplace, not the school as a whole.

The significance of department community differences for teaching practices was apparent in the way the Oak Valley English and social studies teachers talked about their students, their work, and their careers. While social studies teachers complained about the low motivation of today's students and their limited attention spans (and scored high on a survey measure of "perceived student decline"), English teachers saw the very same students as bright and energetic (and scored low on the student-decline scale). Likewise, teachers in the Oak Valley English department talked about new developments in writing instruction, about recent innovations in the department, about sharing materials with colleagues, and about their sense of growth as professionals. In contrast, the social studies department was floundering in its effort to respond to new state and district curriculum guidelines, and many of the teachers we talked with said they felt uninspired in their teaching and stagnant in their careers. Teachers in these two departments were no different in preparation, screening and experience, and they had the same administrators, parent community and students; the difference was in opportunities for learning and support provided by their department communities.

Because its boundaries encompass all elements of the classroom core of teaching — students, content, and teacher — the subject department (or cross-disciplinary unit if

Figure 4. Within-School Differences in Department Community: A Case Study



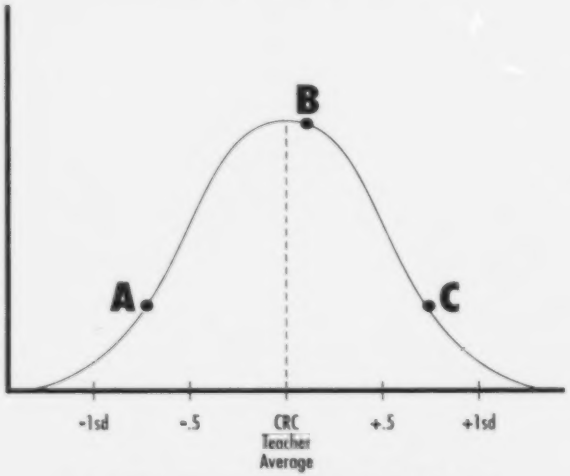
Technical Note: This analysis uses a Collegiality Index combining 5 survey items used in the 1984 High School & Beyond (HS&B) national survey (Alpha=.84). The figure shows: the average score on the index for all teachers in one CRC high school (School 10), average scores for teachers in seven different subject area departments within the school, and national norms for the respective subject areas (based on HS&B data for teachers classified according to their primary subject assignment).

teaching content is so organized in a school) constitutes a key strategic site for building teacher learning communities that promote success with today's students. Likewise, the department community can effectively squelch the efforts of individual teachers and of the policy system to implement new modes of instruction if it strongly enforces traditional norms of practice. In most high schools, the subject department plays a critical role in mediating teachers' responses to students, their responsiveness to content innovations, and their capacity to improve classroom practice.

District Contexts

District-level professional community makes an important and particular contribution to teachers' professional lives, one distinct from school or department influences. The relevance of district context for professional community lies in the overarching sense of professional identity, inclusion, influence, and pride it fosters.

Figure 5. Differences in District Community: Three California Districts



Technical Note: The District Community Index used in this analysis is a 6-item scale (Alpha=.82) based on responses to such statements as: "I feel that the district inspires the very best job performance of its teachers" and "I am proud to tell others I work for this district." Average scores on the scale were computed for CRC teachers in three California districts. The figure shows where the district averages fall on a normalized distribution of scores for the entire sample of CRC teachers.

In CRC's sample, teachers' assessments of district-level professional community ranged from hostile and demoralizing, to strong and supportive. Further, despite the significant and important variation in the character of professional community within and among schools, teachers teaching in quite different school settings expressed a high level of agreement about the nature of their district-level professional community.

Figure 5 illustrates the dramatic differences in assessments of district-level community among the three California districts. Teachers in District A assigned extraordinarily negative ratings to their district's professional community; teachers in District B placed their district-level community at the average for our sample; teachers in District C were unusually positive about professional community in their district.

How does district professional community matter? These California teachers' assessments of their district as a professional community indicated critically and qualitatively different experiences of the district as a place to be a teacher, differences which found their way into the classroom. For one, teachers' perceptions of their different district settings functioned to dampen or enhance aspects of the school or department culture. A strong district-level community, such as that in District C, served to bolster teachers' professional motivation in a weak department. A corrosive or weak district-level professional community, such as that in District A, undermined the positive influences of a solid, vital school community. Even a strong principal and active school community could not entirely countermand the negative influences of District A's soured and bitter professional community.

Teachers in District C spoke of themselves as respected professionals, underscoring the trust and authority they perceived in district policies and practices; they emphasized the pride they felt in being District C teachers. They generally were willing to go the extra bit, to expend the energy and effort necessary to success for all students. District A teachers, conversely, spoke of being "infantalized" by district actions and policies, of being distrusted, of being "treated like automatons not professionals." They did not recommend District A as a place to teach and most would leave if they could. Many of District A's demoralized teachers "worked to rule" and framed teaching in terms of a job, rather than a profession or a career.

The district is more than an empty, neutral stage upon which practice is enacted and careers are constructed. The existence of a vital, positive, and affirming professional community is not just "nice"; it makes a critical contribution to teachers' sense of professional identity, motivation, and willingness to undertake challenges such as those expressed by the nation's education goals. The relationships between teacher and district that generate powerful influences on teachers and teaching have little to do with governance structures, and everything to do with the norms, expectations, and values that shape professional community at the district level.

State Policy as Teaching Context

Looking inside the two very different states in our sample enabled us to refine our findings based on *overall* effects of strong professional community on teachers' attitudes and practices. This comparison showed that ***strong professional communities enable teachers to adapt to today's students if they are embedded in systemic reform contexts***, but otherwise they promote consensus on traditional standards for teaching practices and overall professional commitment.

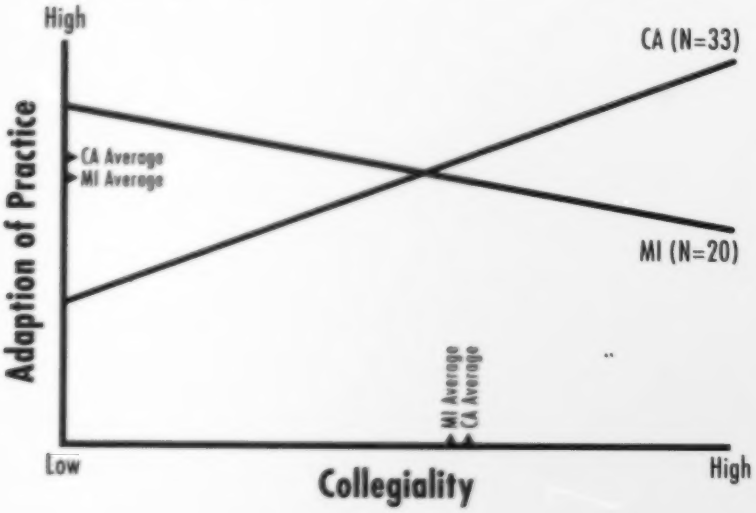
As state contexts of high school teaching, California and Michigan differ substantially in their level of centralization and education reform efforts, with California among the nation's more active states in systemic reform. We considered how these differences might affect the discourse and norms of practice within professional communities and explored two ideas:

- state systemic reform provides the content for discourse and instruction that enables strong professional communities to learn new, successful teaching strategies; and
- strong professional communities are essential conduits and learning contexts for state education frameworks, without which teachers may move more strongly toward enforcing traditional standards and become less, rather than more, flexible in adapting instruction to today's students.

Using a CRC survey measure of instructional adaptation, we examined the relationship between teachers' level of adaptation and the strength of their professional community in California and Michigan. We focused on mathematics teachers, since mathematics is the subject domain in which systemic reform has evolved most rapidly and completely. During the 1988-91 period of our field research, California mathematics frameworks and standards, aligned with those developed by the National Council for Teachers of Mathematics (NCTM), were being promoted aggressively at the state and local levels. These standards call for a radical change in teaching practice from knowledge transmission to interactive, problem-focused modes of instruction.

The data shown in Figure 6 provide clear support for our hunch. In California, mathematics teachers in strong professional communities were much more likely to feel successful in adapting practice to students than were teachers unsupported by colleagues (who, indeed, appeared the least adaptive in their practice). In contrast, Michigan teachers in strong professional communities were somewhat less, not more, likely to adapt practice to students not doing well in their classes, suggesting that these teachers were collaborating to maintain high standards as framed by traditional norms of practice. Michigan teachers lack the strong push for changed content and pedagogy generated by the California systemic reform effort.

Figure 6. Math Teachers' Adaptations to Today's Students: State Differences in Effects of Teachers' Professional Community



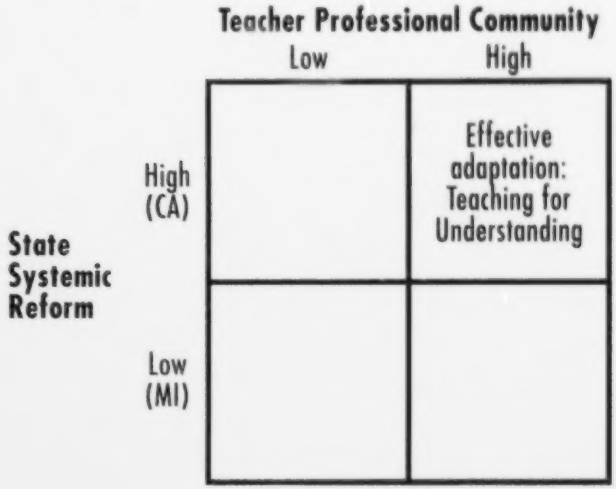
Technical Note: This figure displays results of regression analyses of Adaptations of Practice (Alpha=.72), on Collegiality (Alpha=.84) for mathematics teachers in CRC public schools. The Adaptation of Practice scale is based on two items: "If some students in my class are not doing well, I feel that I should change my approach to the subject;" "By trying a different teaching method, I can significantly affect a student's achievement." The graph shows the regression slope for California math teachers (b=.23; r=.59) and the slope for Michigan math teachers (b=-.10; r=-.27 [NS]).

This finding signals the critical role of teacher discourse and learning communities in managing systemic reform. Teachers' capacity to meet the nation's educational goals appears to depend upon:

- access to curricula frameworks and guidelines for practice that enable success with all students, such as provided through state and local systemic reform; and
- participation in a professional community that discusses new teaching materials and strategies and that supports the risk-taking and struggle entailed in transforming practice.

Figure 7 posits that these two conditions are interdependent in enabling teachers' effective adapatations to today's students through promoting the new mode of teaching for understanding.

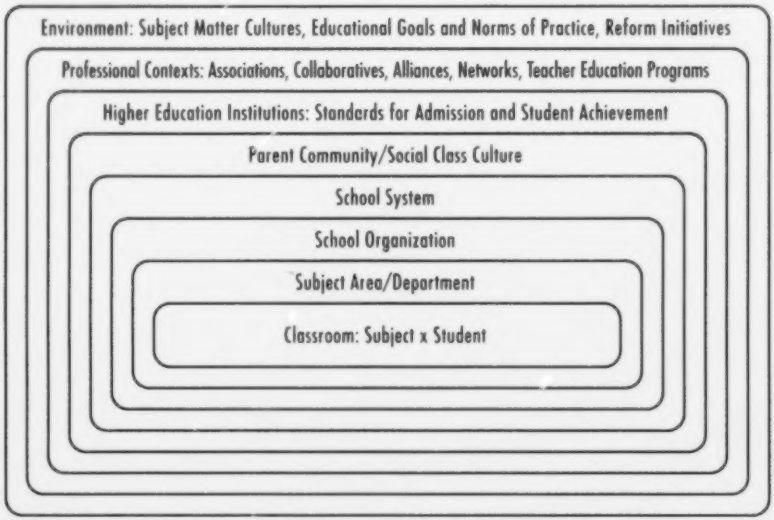
Figure 7. Interdependence of Teachers' Professional Communities and State Systemic Reform in Enabling Effective Adaptation to Today's Students



STRATEGIC OPPORTUNITIES FOR MEETING THE NATION'S EDUCATIONAL GOALS

Professional communities can and do exist at many sites within the education system. Despite the much-remarked-upon eggcrate character of America's secondary schools, teachers and classes function in multiple, embedded contexts, each of which can constrain or enable teaching for understanding and success for all students. However, from the teachers' perspective, the contexts that matter most are not only those defined by the formal policy system; they include other formal and informal organizations. Each of these embedded contexts of teaching represents a *strategic site* for systemic reform.

Figure 8. Embedded Contexts of Teaching


Environment: Subject Matter Cultures, Educational Goals and Norms of Practice, Reform Initiatives
Professional Contexts: Associations, Collaboratives, Alliances, Networks, Teacher Education Programs
Higher Education Institutions: Standards for Admission and Student Achievement
Parent Community/Social Class Culture
School System
School Organization
Subject Area/Department
Classroom: Subject x Student

Professional communities cut two ways—they can both constrain and facilitate policy goals because they mediate policy. These various contexts offer multiple opportunities for teachers' learning and participation; at the same time, any one of them can undermine progress toward the nation's education goals. Policies designed to intersect strategically with one or more of these professional contexts for teachers, and to support teachers' learning communities, aim directly at enabling the values, attitudes and knowledge necessary to change in the core of classroom practice.

STRATEGIC OPPORTUNITIES

A central conclusion of CRC's research is that teachers' groups, professional communities variously defined, offer the most effective unit of intervention and powerful opportunity for reform. It is within the context of a professional community—be it a department, a school, a network, or a professional organization—that teachers can consider the meaning of the nation's education goals in terms of their classrooms, their students, and their content area.

Strong professional community provides context for sustained learning and developing the profession. Effecting and enabling the teacher learning required by systemic reform cannot be accomplished through traditional staff development models — episodic, decontextualized injections of "knowledge" and technique. The path to change in the classroom core lies within and through teachers' professional communities: learning communities which generate knowledge, craft new norms of practice, and sustain participants in their efforts to reflect, examine, experiment, and change.

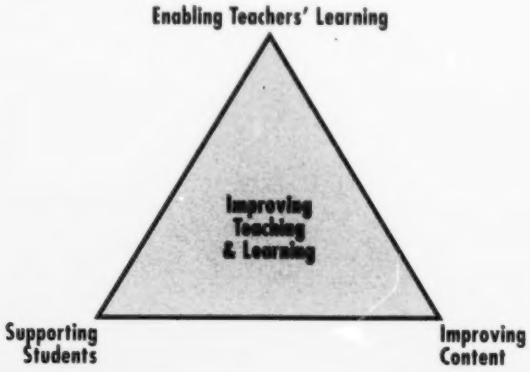
INTEGRATING EDUCATIONAL REFORM STRATEGIES

Rethinking the Policy Frame

Achieving the nation's educational goals requires more than integrated curricula frameworks and better assessment. Achieving success for all students in a rigorous curriculum of study demands integrated attention to teachers and students as well as content and standards—to all components of the classroom core.

Meeting the nation's educational goals requires a policy frame that moves beyond a "project mentality," and away from a "one thing at a time" approach to reform to consider simultaneously the policy issues central to *all three aspects of the classroom core:* content, students, and teacher.

Figure 9. Integrating Educational Reform



Improving content

Systemic reform initiatives seek to integrate components of the education system — most especially curricula, tests, and standards — and reflect the fundamental need to strengthen the skills and competencies that all students need to ensure their success and that of the country. Systemic reform efforts recognize that *all* elements of the instructional system must be strong, interconnected, and rigorous.

Focus on content and standards, independent of the classroom core, risks treating teaching as a black box. Alone, this strategy can yield only islands of excellence, not systemic reform or success for all, if some teachers have insufficient learning opportunities and some students have inadequate supports. Ironically, reliance on

tougher standards and more demanding content alone as the primary engine of reform can work against the nation's goals, as teachers uncertain about how to adapt to today's students rigorously enforce traditional standards, and fail greater numbers of students, or provide watered-down instruction.

Supporting students

Students require significantly strengthened and different supports to meet the nation's educational goals. Absent sufficient supports for students, even teachers' best efforts likely will fall short as crises and everyday conditions remove students figuratively or literally from the classroom and learning opportunities.

Comprehensive reform must address the needs of today's students in order for them to be successful, to move confidently to productive lives as adults. Policies which promote this objective must fundamentally rethink existing supports and services for students and would, for example:

- support integrated services located at the school site—medical, social welfare, educational, and adult or community services brought together at the school;
- strengthen links between students' lives and school for secondary school students, with special attention to proactive, culturally sensitive strategies that provide parents with concrete suggestions for assisting their student;
- stress provision of adequate and culturally appropriate counselling resources;
- provide student advocates in culturally diverse, low-resource, economically distressed communities;
- engage grassroots agencies in the educational enterprise and form new alliances for youth—recognize, support, and legitimize the important opportunities neighborhood-based organizations represent.

Enabling teachers' learning

Comprehensive systemic reform must embrace effective opportunities for teachers to learn the new strategies, knowledge, and perspectives assumed by new curricula frameworks, higher standards, and expanded expectations for students' success and conceptual understanding. Strategic opportunities are rooted in the contexts that stimulate and sustain teachers' learning and growth: professional communities. Policies that frame the issue of teachers' learning in terms of professional community would, for example:

- exploit the opportunities represented by the multiple, embedded contexts of teaching, as seen from teachers' perspectives, and the mediating role of teachers' professional communities;

- invest in diverse learning communities for teachers and charge them with responsibilities for implementing reform goals and engendering new educational environments;
- support higher education programs that define teachers as learners [rather than "experts" and authority figures], and provide teachers the skills and perspectives necessary to membership in a learning community;
- convene actors representative of a "vertical slice" through teachers' multiple contexts, a forum capable of enlisting the diverse perspectives, and engage this group in identifying implications for such activities as dissemination, technical assistance, research and development, evaluation and credentialling;
- assess the implications of existing teacher policies such as teacher evaluation, licensing, and advancement for teachers' role as learners and active members of a professional community. ["Needs improvement," for example, ranks among the worst "marks" a teacher could get on an evaluation.]

Meeting the nation's education goals requires a reframing of the policy debate to address simultaneously the interdependent, core needs of improved content, student supports, and sustained learning opportunities for teachers. This integrated reform strategy aims to create conditions that can enable effective teaching and learning by seeking policy coherence at the classroom core, in the everyday interactions of students and teachers around content.

In this reform strategy, education policy is framed as a social resource and catalyst to promote excellence and equity — teaching for understanding and enhanced learning outcomes for all students. At all levels of the system, policymakers can allocate resources in ways that expand teachers', and in turn students', learning opportunities. The ultimate test of policy coherence and expectations for all students' success takes place in the classroom. However, reform need not proceed on a classroom by classroom basis, but through teachers' professional communities engaged in discourse about productive ways to meet the nation's education goals.

APPENDIX

CRC Research Strategy and Data Bases

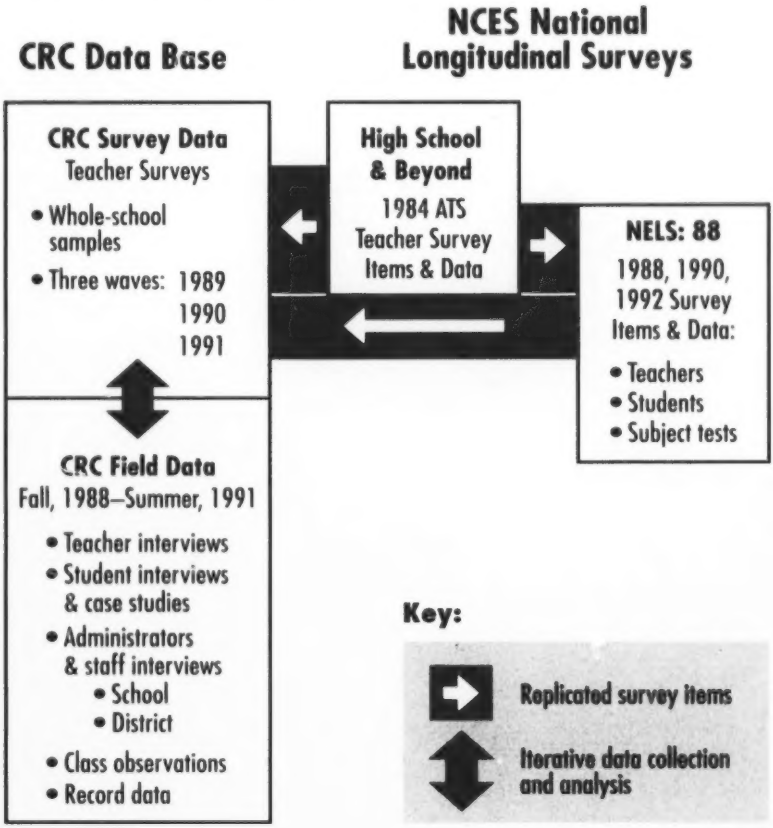
The Center's research program combined two strategies; the first is the development of a core data base made up of extensive longitudinal data for sixteen sites. Its primary data base includes:

- qualitative and quantitative field data on classroom, department, school, district, and state teaching contexts developed through interviews, site records, school and classroom observations;
- survey data for all teachers in each school at three time points; Spring 1989, 1990, and 1991; and
- qualitative and quantitative data for forty-eight students.

CRC's research strategy also included special, focused research projects that built upon the core data base or that provided "bridging analysis" with national survey data (HS&B and NELS:88) on secondary schools, teachers, and students. These focused projects included "Students' Perspectives on School," "Professional Development and Professional Community," "Subject Matter as Context for Teaching and Learning," "The Academic Department," "Teacher Tracer Study: Teaching for Understanding in Context," "Teacher Unions as Context," and "Potentials for Assessing Classroom Teaching Effects with NELS:88 Items and Samples."

Figure 10 shows elements of the core data base and bridges to the national surveys.

Figure 10. CRC Data Base and Bridges to National Surveys



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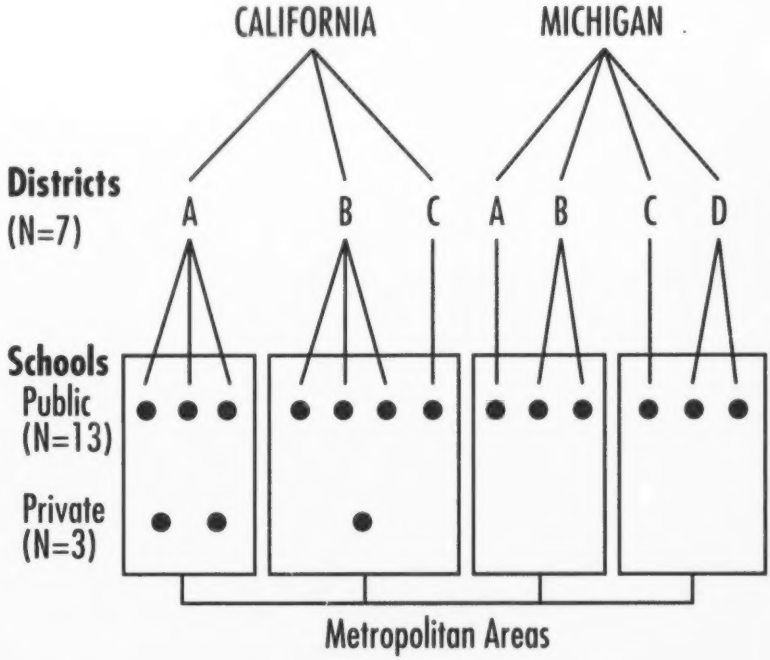
CRC Field Sample: Embedded School, District, Sector, Metro Area, and State Contexts

We constructed our field sample to represent diverse and embedded secondary school contexts. We aimed to establish rich opportunities for analyzing interactive effects of different kinds and combinations of teaching context conditions — including state policies, district conditions, school alternatives and choice, student characteristics — and the social construction of teaching and learning environments within them.

Figure 11. Embedded Field Sample



APPENDIX

Figure 11 depicts our embedded sampling design, which included:

- nearly 900 teachers
- 16 high schools (12 regular public schools, 1 alternative public school, and 3 independent schools)
- 7 districts
- 4 metropolitan areas
- 2 states

The two sample states, Michigan and California, represent substantially different policy contexts for teaching. Centrally, they contrast on level of centralization and involvement in educational reform. Michigan, like many states, has maintained a tradition of local control. California, in contrast, has been centralizing both school finance and educational standards for more than a decade. This state's aggressive efforts to reform educational practice, make it a leader in what is now called "systemic reform" — defining and aligning the goals, content, and outcome standards for classroom instruction. Also distinguishing the two states are economic conditions and student demographics. While Michigan is by no means a wealthy state, its support for public education significantly exceeds that of California and its schools are not confronted with the level of stress signaled by California's burgeoning population of limited-English-proficiency children.

Within each state, we targeted two metropolitan areas that represent substantially different economic contexts, relative scarcity and relative wealth, in terms of urban communities. Within each metropolitan area we selected one urban public school district and one suburban district and/or an independent school. This design allowed us to describe and understand a particular school and district within its broader community setting — in contrast to a random sampling strategy which strips the school of its larger political and organizational context and thus is antithetical to the mission of this Center.

The embedded sampling strategy prompted us to select two or three schools within each urban district. The schools were selected to represent "typical" schools serving the range of district students on social and demographic characteristics; we avoided the most troubled inner-city schools which have received so much attention in the research literature. The multiple school sample within these districts enabled us to understand system effects as well as the implications of different institutional routines and responses within the same community and organization context. In particular, the contours and nuances of district policy and practice can be detected only if one views this context from the perspective of more than one school.

APPENDIX

Comparison schools relatively unconstrained by their organizational and policy environments are provided by our independent school sample: a school designed for middle-class youngsters unsuccessful in traditional high schools (CA), a typical college preparatory school (CA), and an academically selective, high-performance school (CA). Suburban schools provide additional points of comparison of organizational and community contexts of teaching. The two suburban sites represent interesting differences in community contexts (a rapidly-growing, upper middle class CA district and a stable middle-class MI community).

The Center's teacher sample is the population of regular full-time and part-time teachers who taught in the sixteen CRC schools at any time during the period from Fall 1987 through Spring 1991. During the 1990-91 school year there were 877 teachers in the combined school faculties. All teachers were surveyed each spring (three times), and the annual respondent samples averaged around 700 teachers. The teacher interview sample included all department chairs, most academic teachers, and a distributed sample of nonacademic teachers in each CRC school. Key staff members and administrators in each school also were interviewed.

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R92-6 McLaughlin, M.W. & J.E. Talbert, "Summary description of CRC core data base: Integrating field and national survey research."

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